

ESKIDIS2 (SQA Unit Code - F9C8 04)

Design and imaging software



Overview

This is the ability to use a software application designed to create, modify and layout artwork or images for display in print or on a screen (eg vector graphics for design and drawing; raster graphics for photo manipulation or illustration).

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Performance criteria

You must be able to:

Obtain, insert and combine information for designs or images

- P1. Obtain, input and [prepare designs or images](#) to meet needs
- P2. Use appropriate techniques to organise and [combine information](#) of different types or from different sources
- P3. [Store and retrieve](#) files effectively, in line with local guidelines and conventions where available

You must be able to:

Use design and imaging software tools to create, manipulate and edit designs or images

- P4. Select and use suitable techniques to [create designs or images](#)
- P5. Use guide lines and dimensioning tools appropriately to enhance precision
- P6. Select and use appropriate tools and techniques to [manipulate and edit](#) for designs or images
- P7. [Check designs or images](#) meet needs, using IT tools and making corrections as necessary
- P8. Identify and respond to [quality problems with designs or images](#) to make sure that they meet needs

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Knowledge and understanding

You need to know and understand:

Obtain, insert and combine information for designs or images

- K1. Describe what **designs or images** are needed
- K2. Describe what **copyright and other constraints** apply to the use of images
- K3. Describe what **context the designs or images** will be used in
- K4. Describe when and how to combine information in different **file formats**
- K5. Describe what **file format** to use for saving designs and images to suit different presentation methods

You need to know and understand:

Use design and imaging software tools to create, manipulate and edit designs or images

- K6. Identify what **technical factors affecting designs or images** need to be taken into account and how to do so

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Additional Information

Scope/range

An intermediate user can select and use a range of intermediate design and imaging software tools and techniques to produce at times non-routine or unfamiliar designs and images. Any aspect that is unfamiliar may require support and advice from others.

Design and imaging software tools and techniques will be defined as 'intermediate' because:

1. the range of entry, manipulation and outputting techniques will be at times non-routine or unfamiliar;
2. the software tools and functions involved will at times be non-routine or unfamiliar; and
3. the user will take some responsibility for setting up or developing the type or structure of the document.

Example contexts: work flow process maps, drawings or edited photos for a website.

Examples of Content

The examples given are indicative of the learning content at each level and are not intended to form a prescriptive list for the purpose of assessment

Obtain, insert and combine information for designs or images

Designs or images: Designs or images will vary according to the task for example, photos from a digital camera, scanned images, graphic elements, drawings, clip art

Prepare images: Size, crop and position

Copyright constraints: Effect of copyright law (eg on use of other people's images), acknowledgment of sources, permissions

Combine information: Insert, size, position, wrap, order, group

Context for designs and images: Contexts will vary according to the software and task, for example: on screen display, publishing on a web site, hard copy print out, digital file

File formats for designs and images: Will vary according to the content, for example *jpg* for Internet photo display, *png* for Internet drawing display, *svg* for graphic designs (the ISO standard most likely to be fully supported by web browsers)

- Digital picture format (e.g. jpeg and psd)

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- *Bitmap or raster picture formats (eg raw bitmaps, bmp and compressed formats jpeg and png)*
- *Vector graphics (eg svg, wmf, eps, ai)*
- *Open formats (eg html, odf, pdf and rtf)*
- *Proprietary formats (eg pub and qxd)*
- *Method of compression (lossy, non-lossy)*

Store and retrieve: Save, save as, find, open, close, *import, export to other file formats; reduce file size*

Use design and imaging software tools to create, manipulate and edit designs or images

Technical factors affecting designs and images: Page or canvas size; colour mode; file size and format; difference between screen and print resolution

Create designs and images: Draw basic shapes and adjust properties (eg line width, fill colour, transparency); download digital photos from a camera; scan and resize images; add text and other elements such as lines, boxes and arrows; create more complicated designs using painting, drawing or image manipulation software

Manipulate and editing techniques: Align, rotate, flip, arrange, cut, paste, resize, change font, text and colour, group, ungroup, change templates, filters to create special effects, orders and layers

Check designs and images: Size, alignment and orientation, suitability of file format, *appropriate choice of colour mode and use of filters, fitness for purpose of image resolution*

Quality problems with designs and images: Will vary according to the content, for example, levels, contrast, resolution

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Developed by e-skills UK

Version number Version 4

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Validity Current

Status Original

Originating organisation e-skills UK SSC

Original URN ESKIDIS2

Relevant occupations Application Support; ICT for users; Information and Communication Technology

Suite IT Users 6.2

Key words IT User, ICT, Information Technology, ITQ, Productivity